POST NATAL PHYSIOTHERAPY

By Dr.PALWASHA HADI

INTRODUCTION

- The postnatal period is generally distributed into three distinct, but continuous phases:

- Acute Phase: 24 hours immediately following delivery
- Sub-Acute Phase: 2-6 weeks following delivery
- Late Phase: 6 weeks - 6 months following delivery

The length of the Late Phase is dependent on ***major muscle tone and connective tissue recovery.***

The physiological changes in the Late Phase are generally very gradual and subtle.

Postnatal Clinical Presentation and Considerations

- During the initial 6 weeks following childbirth, mothers face a high risk of hospital readmission, mainly due to factors such as
  - infection, preeclampsia, and cardiovascular issues.
- About 57% of maternal deaths occur within this period.
- Acute care screening and follow up after birth is important.
- Main 4 types of screening includes:

1. Cardiopulmonary screening.
2. Neurological screening.
3. Musculoskeletal screening.
4. Mental screening.

MUSCULOSKELETAL SCREENING

- Common birth- and pregnancy-related injuries encompass issues like

❑ pelvic symphysis diastasis and lumbar injuries,

which can cause pain, mobility problems, and challenges with daily activities.

These injuries may include

- Increased elasticity in ligaments.
- Diastasis recti abdominis.
- Weakened pelvic floor musculature.
- Weakness in the levator ani muscle.
- Urinary incontinence.
- Pelvic organ prolapse.
- Pelvic floor neuropathy.
- Incontinence of stool and flatus.
- Swollen extremities hands, feet, and ankles.
- Excessive weight gain.
- Low back pain.

Postnatal Management

- There is acute care therapist including
  - Physical therapist and
  - Occupational therapist
- However, new mothers are often discharged without assessment.
- There's a significant need for comprehensive education for maternal care providers in obstetric rehabilitation to enhance outcomes.

Occupational Therapy

- Occupational therapy along with physical therapy will provide

- Coping strategies, Stress management, and Role adjustment, potentially lessening the long-term impact of mood and anxiety disorders.
- Wound care protection
- Use of pillows or blankets after a cesarean section.
- For perineal lacerations, positioning to alleviate discomfort during daily activities and infant care.
- Focus on enhancing heart-lung health
- Walking quality/distance, and stair movement.
- Gradual progress physical activity, and lifting

Occupational Therapist's Role

- Occupational therapists treat women with Postpartum depression (PPD)
- The role of Occupational therapy includes the following:

➢Helping mothers with PPD through community support, assessment of function, and specific goals for time use and occupational balance.

➢Enable new mothers to balance breastfeeding with other occupations (e.g., self-care, productivity, leisure) .

➢They use cognitive behavioral techniques to support women with PPD to promote infant-parent engagement, improve participation in daily activities with the infant, such as play.

Physical Therapy's Role

- Physical therapy, through a combination of
  - *manual therapies*,
  - *specific treatments*, and
  - *therapeutic exercise*,

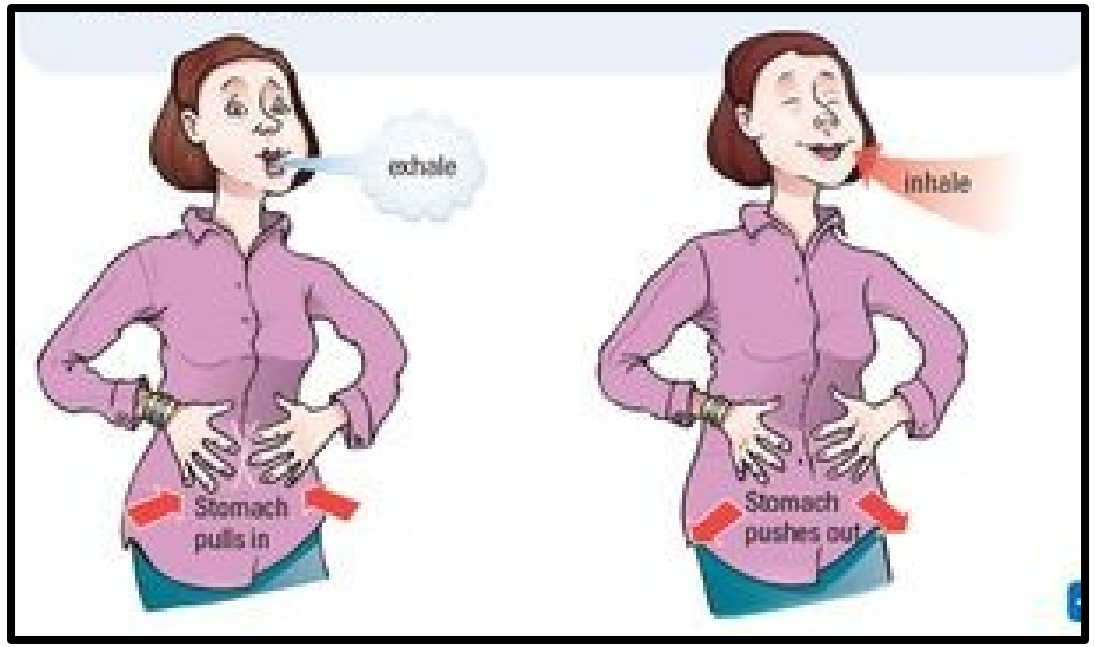
  can improve health outcomes for new mothers in the postnatal period.

Physical therapy interventions may help with the following:

- Improve mood
- Improve cardiorespiratory fitness
- Promote weight loss
- Reduce the risk of postpartum depression and anxiety
- Enhance psychological well-being
- Improve sexual health and sexual dysfunction
- Lead to better outcomes assessing quality of life.

Specific Interventions

Diaphragmatic Breathing



- It promotes
  - *efficient respiration*
  - *Bring awareness to breath control and postural control*
  - *Enhance relaxation*
  - *Improve core muscle stability.*

It activates the entire torso and helps you to relax.

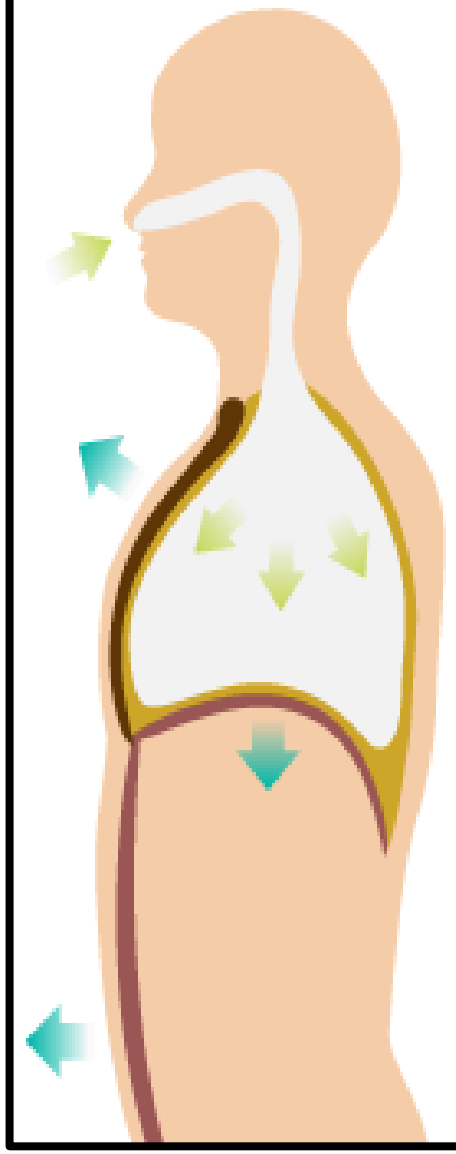
Technique of doing diaghragmatic breathing.

- Breath in through your nose and let your stomach expand.
- Breath out through your mouth and pull your stomach towards your spine.
- Repeat the exercise several times.

INHALE

Air will flow from an area of higher pressure to the area of lower pressure

EXHALE



DIAPHRAGM
contracts and moves down

RIB CAGE elevates

LUNGS expand following the diaphragm and the rib cage

The pressure inside the lungs is now lower then the pressure outside

AIR gets pulled into the lungs

Diaphragm pushes down on the abdominal contents

ABDOMEN expands

DIAPHRAGM
relaxes and returns to the dome shape

RIB CAGE returns to the original position

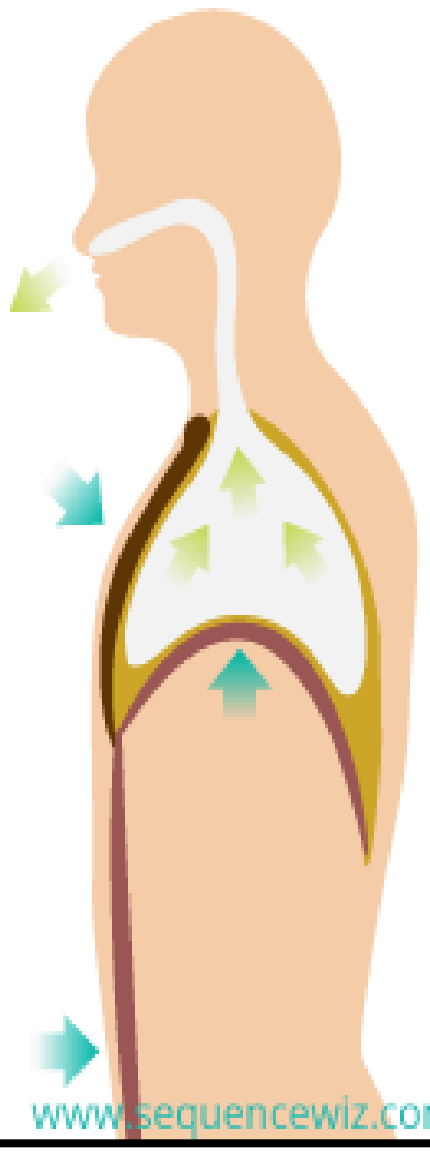
LUNGS shrink following the diaphragm and the rib cage

The pressure inside the lungs is now higher then the pressure outside

AIR is forced out of the respiratory tract

Diaphragm rises, releasing pressure on the abdominal contents

ABDOMEN returns to the original position



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The role of diaphragmatic breathing exercise on urinary incontinence treatment: A pilot study

Nevin Toprak [1], Selva Sen [2], Berrak Varhan [3]

Affiliations + expand

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Abstract

Objective: The main aim of this pilot study was to examine the effect of diaphragmatic breathing exercise on urinary incontinence treatment. The secondary purpose was to compare the effect of pelvic floor muscle exercises and diaphragmatic breathing exercises on urinary incontinence women.

Design: Participants were randomized into two groups: pelvic floor muscle exercises (Group PFM n = 20) and diaphragmatic breathing exercises (Group DB n = 20). Exercise programs consisted of 1 set of contractions per day and each set included 30 repetitions for 6 weeks. Women were asked to complete forms of Incontinence Impact Questionnaire (IIQ-7) and the Urogenital Distress Inventory (UDI-6), Incontinence Quality of Life (I-QOL), and Overactive Bladder (OAB-V3) before starting the program and again at the end of the 6-week program.

Results: IIQ-7, I-QOL, and OAB-V3 scores significantly improved in both groups, after exercises. There were no difference between groups in the post-exercise scores. Total score of the UDI-6 was statistically significantly decreased higher in the DB exercises group. UDI-6 Urge Symptoms decreased statistically significantly only in the DB exercises group. Even though there was a decrease in the PFM group, but it was not significant.

Conclusion: Diaphragmatic breathing exercises may be an alternative to pelvic floor muscle exercises in the treatment of urinary incontinence. CLINICALTRIALS.

PELVIC FLOOR EXERCISES

- Pelvic floor muscle exercises are vital for addressing pelvic pain, urinary and fecal incontinence, and sexual dysfunction.

- Exercises to strengthen pelvic floor muscles includes
  - Kegel exercises,
  - bridges,
  - squats, and more.

- Pelvic floor exercises may help to improve pelvic floor weakness and enhance bowel and bladder control.

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Kegel Exercise Training Program among Women with Urinary Incontinence

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Masafumi Koshiyama, Academic Editor

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Associated Data

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Abstract

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A common condition with a large global prevalence and a persistent medical taboo for many people is urinary incontinence. Around one in three women globally are impacted by it. The most frequently suggested physical therapy treatment for women with stress incontinence or urge incontinence is Kegel exercise (also called pelvic floor muscle training). This study aims to assess the effects of a Kegel exercise training program among women with urinary incontinence. The study was conducted at three

everyday activities. Following the adoption of the Kegel exercise training program, there was a substantial improvement in both urine incontinence and quality of life.

Pelvic floor exercises during and after pregnancy: a systematic review of their role in preventing pelvic floor dysfunction

Marie-Andrée Harvey [1]

Affiliations + expand

PMID: 12806450
DOI: 10.1016/s1701-2163(16)30310-3

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Abstract

Objective: To review the literature on the origin, anatomical rationale, techniques, and evidence-based effectiveness of peripartum pelvic floor exercises (PFEs) in the prevention of pelvic floor problems including urinary and anal incontinence, and prolapse.

Conclusion: Postpartum PFEs appear to be effective in decreasing postpartum urinary incontinence. Data regarding the effect of PFEs on prevention of anal incontinence are lacking, and also on its prevention of prolapse.

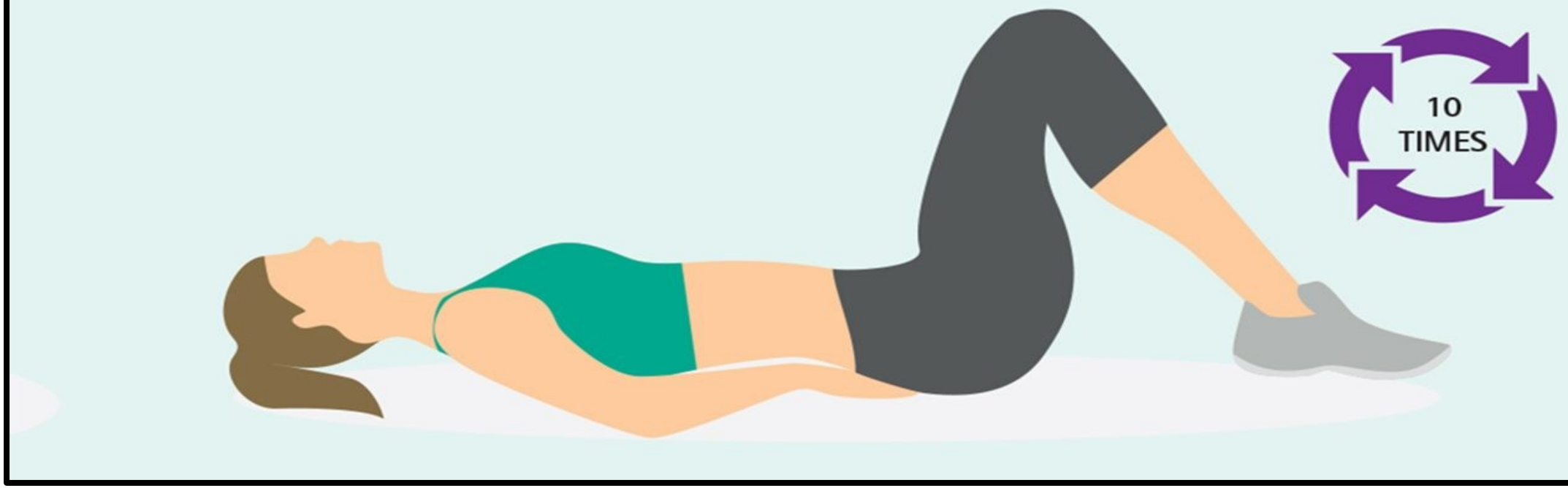
KEGELS (FOR BEGINNERS)

- Kegel exercises focus on tightening and holding the muscles that control urine flow.
- To perform this exercise, a person should:

- Sit in a comfortable position, close the eyes, and visualize the muscles that can stop urine flow.
- Tighten these muscles as much as possible.
- Hold this position for 3–5 seconds. It should feel as though the muscles are lifting up as a result of the squeezing.
- Release the muscles and rest for several seconds.
- Repeat this up to 10 times.
- People can vary this exercise by doing it while standing, lying down, or crouching on all fours.

LONG SQUEEZES

1. Lie, stand or sit with your knees slightly apart
2. Slowly tighten the pelvic muscles around your rectum and vagina
3. Squeeze both areas as hard as you can
4. Hold for 10 seconds and relax



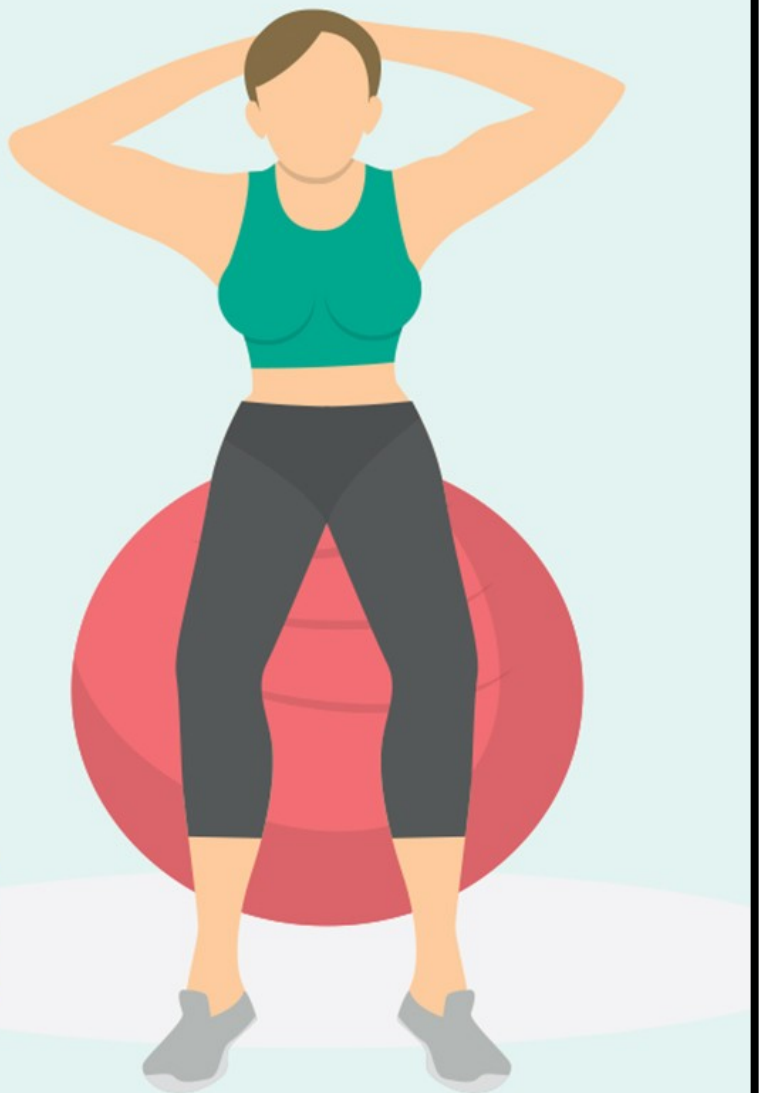
SQUEEZE AND RELEASE

- This rapid movement helps the pelvic floor muscles respond quickly.
- To perform this exercise, a person should:

- Sit in a comfortable position.
- Picture the pelvic floor muscles.
- Squeeze them as quickly as possible and release them without trying to hold the contraction.
- Rest for 3–5 seconds.
- Repeat this 10–20 times per set.
- Two sets per day.

SHORT SQUEEZES

1. Lie, stand or sit, with your knees slightly apart
2. Quickly squeeze the pelvic muscles around your rectum and vagina
3. Hold for 2 seconds, and release



BRIDGING (ADVANCED)

- While the bridge exercise primarily strengthens the buttocks, it also helps the pelvic floor.

- To do this exercise:

➢ Lie on the back, bend the knees, with the feet flat on the floor about hip-width apart. Keep the arms by the sides with the palms facing down.

➢ Contract the buttocks and pelvic floor muscles, and lift the buttocks several inches off the ground.

➢ Hold this position for 3–8 seconds.

➢ Relax the buttocks and pelvic floor muscles, and lower the buttocks to the ground.

➢ Repeat this up to 10 times per set.

➢ Rest, then perform up to two additional sets.

BRIDGE POSITION

1. Lie on your back with your knees bent and feet flat on floor, hip width apart
2. Take a deep breath in, squeeze and lift your pelvic muscles. Keep breathing
3. Lift your hips. Hold the position for 10 seconds
4. Lower down and release your pelvic floor
5. Rest for 10 seconds

SQUATS

A person should only start doing squats after becoming comfortable doing Kegels in a stationary or bridge position.

To perform a squat, a person should:

- Stand with the feet hip-width apart, keeping them flat on the floor.
- Bend at the knees to bring the buttocks toward the floor, going only as low as is comfortable.
- Keep the back straight and tilted slightly forward. The knees should be in line with the toes.
- Focus on tightening the buttocks and pelvic floor while returning to a standing position.
- Repeat this exercise, doing up to 10 repetitions per set.

Not all squats target the pelvic floor, however. Wide-legged or deep squats may make it difficult to retain a pelvic floor contraction.

When strengthening the pelvic floor, narrow and shallow squats tend to be more beneficial.

ADVANCED PELVIC FLOOR EXERCISES

WALL SQUAT

1. Stand with your back against the wall, feet hip width apart.
2. Take a deep breath, squeeze and lift your pelvic muscles and lower into a squat.
3. Hold for 10 seconds. Keep breathing.
4. Return to standing and release your pelvic floor.
5. Rest for 10 seconds

OTHER TREATMENT TECHNIQUES

- **Biofeedback**, with the use of a sensor pressure probe that is inserted into your vagina or rectum, to sense the strength of contractions of the pelvic floor muscles to help you be aware of when you are contracting or relaxing these muscles.
- **Electrical stimulation** to help elicit pelvic floor muscle activation
- **Vaginal dilators**, which are cylindrical objects of varying widths that are inserted into the vagina to gently stretch the pelvic floor muscles and allow them to relax with insertion
- **Weighted cones**, which can be inserted into the vagina or rectum, and used during contraction exercises to provide increased resistance
- **Acoustic compression therapy**, which uses sound waves to reach deep muscles.
- **Laser therapy** to help muscles heal.
- Limiting coffee intake, because it's a diuretic (causing increased urination). This, along with pelvic floor exercises, may improve symptoms in people with overactive bladders.

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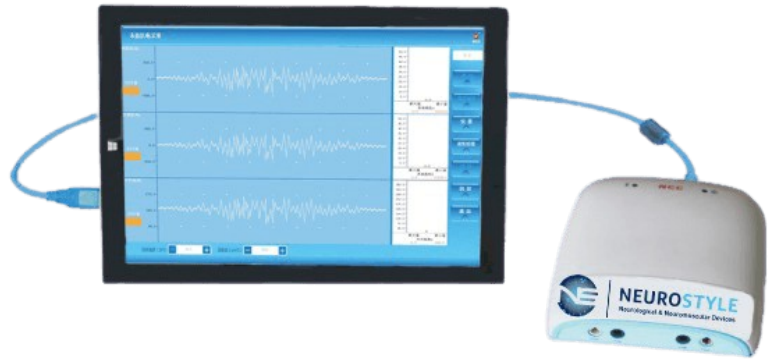
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